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ABSTRACT

This paper describes the background characteristics, experiences and outcomes of Connecticut vocational-technical high school graduates that attend Connecticut Community Colleges and, where appropriate, compares them with graduates of Connecticut public comprehensive high schools. The sample for this study includes students who graduated from Connecticut vocational-technical high schools in the spring of 1999, 2000, and 2001 and attended community college in the fall semester of the same year. The comparison group includes peer equivalents from the comprehensive high schools. Using this definition, vocational-technical high school graduate enrollment has increased by 34% over the last three years. Comprehensive high school graduate enrollment has increased by 21% over the same time period. The proportion of men and women included in both groups is statistically similar (roughly 50% each). The vocational-technical high school graduates attending the community colleges include a larger percentage of minority students than the comprehensive high school graduates. Overall, part-time students from both groups tend to be older than the full-time students. For the vocational-technical high school group, there has been a steady increase in full-time community college enrollment since 1999. The data suggest that high school type is not related to future academic performance at the Connecticut Community Colleges. (RC)

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Connecticut
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Education That Works For a Lifetime

Vocational-Technical High School Graduates that Attend Connecticut Community Colleges: Who are they? Are they Successful?

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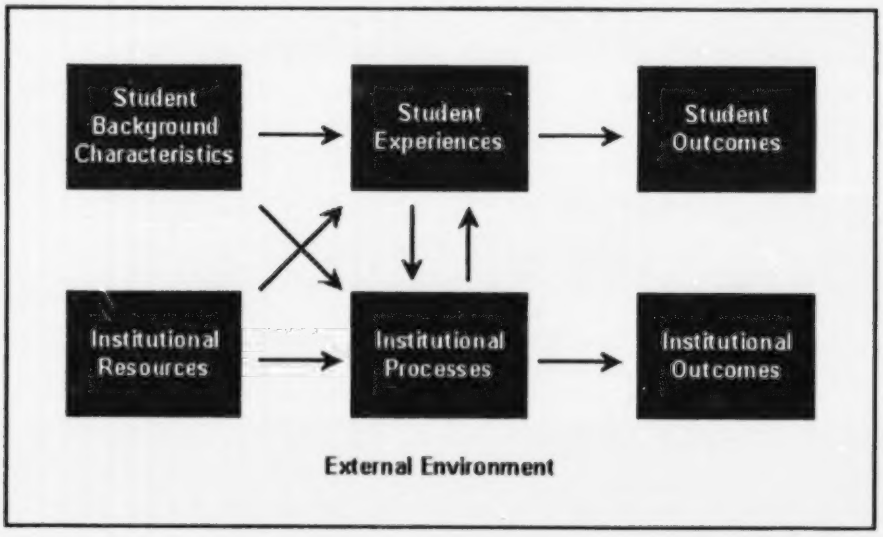

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Executive Summary

This paper describes the background characteristics, experiences and outcomes of Connecticut vocational-technical high school graduates that attend Connecticut Community Colleges and, where appropriate, compares them with graduates of Connecticut public comprehensive high schools. The issues surrounding preparedness are beyond the scope of this study.

The sample for this study includes students who graduated from Connecticut vocational-technical high schools in the spring of 1999, 2000 and 2001 and attended a community college in the fall semester of the same year. The comparison group includes peer equivalents from the comprehensive high schools. Using this definition, vocational-technical high school graduate enrollment in Connecticut community colleges has increased by 34% over the last three years. Comprehensive high school graduate enrollment has increased by 21% over the same time period.

The proportion of men and women included in both groups is statistically similar (roughly 50% each). The vocational-technical high school graduates attending the community colleges include a larger percentage of minority students than the comprehensive high school graduates. This difference can be attributed to a higher proportion of Hispanic students. Overall, part-time students from both groups tend to be older than the full-time students. For the vocational-technical high school group, there has been a steady increase in full-time community college enrollment since 1999.

There is little evidence found in the available data to suggest that vocational-technical students are any more or less successful then their peers from the comprehensive high schools. For the fall of 2000 and 2001 the first semester grade point average for full-time students from the vocational-technical high school graduates was statistically higher than that of the comprehensive high school graduates; the difference between a C+ (2.30) and a C (2.0). There are no differences between groups with respect to persistence from beginning of term to end of term. With the exception of part-time students from cohort year 2000, there are no significant differences between groups with respect to one-semester retention rates. There are no differences between groups with respect to annual retention rates. This study does not attempt to address the level of preparation for college demonstrated by either group of students. A separate investigation will deal with preparedness.

The data suggest that high school type is not related to future academic performance at the Connecticut Community Colleges. As a system, we should move forward with articulation discussions and do more to better inform all Connecticut high schools concerning the success of their graduates.

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Introduction

The Connecticut Community College System and Connecticut vocational-technical high schools continue to address high school, community college and beyond (2+2+2) transition issues and programs. To inform these efforts, it is important that we know the demographics of these students, how prepared they are for college level studies and ultimately how successful they are at the community colleges.

This paper describes the background characteristics, experiences and outcomes of Connecticut vocational-technical high school graduates that attend Connecticut Community Colleges and, where appropriate, compares them with graduates of Connecticut public comprehensive high schools. The issues surrounding preparedness are beyond the scope of this study.

Data Sources and Elements

Data is abstracted from official reporting snapshots taken during the third week of a semester or at the end of a semester. Data elements include student background characteristics (type of high school attended, gender, ethnicity, and age), student experiences (credit hours attempted; full- or part-time enrollment), and student outcomes (persistence, first semester grade point average and retention).

Student Background Characteristics

The sample for this study includes students who graduated from Connecticut vocational-technical high schools in the spring of 1999, 2000 and 2001 and attended a community college in the fall semester of the same year. The comparison group includes peer equivalents from the comprehensive high schools. Using this definition, vocational-technical high school graduate enrollment in Connecticut community colleges has increased by 34% over the last three years. Comprehensive high school graduate enrollment has increased by 21% over the same time period.

Table 1 Student Enrollment

	Fall 1999	Fall 2000	Fall 2001
Vocational-Technical High Schools	191	238	256
Comprehensive High Schools	2523	3064	3162

Table 2 on the next page displays enrollments by feeder vocational-technical high school. Platt, Bullard Havens, and Kaynor are the top three vocational-technical high school feeder institutions for the community colleges. On average, approximately 50% of the students are female and 50% male. There were no significant differences between groups with respect to gender (see Table 3 on the next page).

Table 2 Headcount Enrollment

HS Name	1999	2000	2001	Total
Platt Reg Voc Tech	30	27	28	85
Bullard Havens Reg Voc Tech	24	23	31	78
W F Kaynor Reg Voc Tech	15	28	21	64
O Wolcott Reg Voc Tech	16	18	17	51
E C Goodwin Reg Voc Tech	7	22	16	45
H Cheney Reg Voc Tech	14	12	13	39
A I Prince Reg Voc Tech	7	18	14	39
Eli Whitney Reg Voc Tech	12	11	15	38
H H Ellis Reg Voc Tech	9	8	18	35
H C Wilcox Tech Sch	12	12	8	32
Windham Reg Voc Tech	7	13	10	30
J M Wright Reg Voc Tech	8	8	13	29
Grasso Se Reg Voc Tech	4	11	13	28
E O'Brien Reg Voc Tech	7	8	10	25
Vinal Reg Voc Tech	7	6	8	21
H Abbott Reg Voc Tech	7	7	7	21
Norwich Reg Voc Tech	2	6	12	20
E C Goodwin Bristol Sat	3	0	2	5
Voc-Tech High School Total	**191**	**238**	**256**	**685**

Table 3 Enrollment by Gender

		1999	2000	2001	Total
Vocational-Technical High Schools					
	Females	104	115	126	345
		54%	48%	49%	50%
	Males	87	123	130	340
		46%	52%	51%	50%
	Total	191	238	256	685
		1999	2000	2001	Total
Comprehensive High Schools					
	Females	1307	1584	1667	4558
		52%	52%	53%	52%
	Males	1216	1480	1495	4191
		48%	48%	47%	48%
	Total	2523	3064	3162	8749

Table 4 provides ethnicity data. There is a higher percentage of minority students in the sample from the vocational-technical high schools than from the comprehensive high schools. This difference can be attributed to the higher proportion of Hispanic students from the vocational-technical high schools.

Table 4 Enrollment by Ethnicity

		1999	2000	2001
Vocational-Technical High Schools				
	American Indian/ Alaskan Native	2 (1%)		1 (0%)
	Asian/Pacific Islander	1 (1%)	2 (1%)	2 (1%)
	Black, non-Hispanic	23 (12%)	49 (21%)	45 (18%)
	Caucasian, Non-Hispanic	105 (55%)	119 (50%)	141 (55%)
	Hispanic	46 (24%)	56 (24%)	53 (21%)
	Unknown Ethnic Group	14 (7%)	12 (5%)	14 (5%)
	Total Minority	*72 (38%)	**107 (45%)	***101 (39%)
	Total	191	238	256
		1999	**2000**	**2001**
Comprehensive High Schools				
	American Indian/ Alaskan Native	9 (0%)	11 (0%)	11 (0%)
	Asian/Pacific Islander	57(2%)	88 (3%)	81 (3%)
	Black, non-Hispanic	288 (11%)	394 (13%)	465 (15%)
	Caucasian, Non-Hispanic	1738 (69%)	2011 (66%)	2021 (64%)
	Hispanic	293 (12%)	388 (13%)	399 (13%)
	Unknown Ethnic Group	138 (5%)	172 (6%)	185 (6%)
	Total Minority	*647 (26%)	**881 (29%)	***956 (30%)
	Total	2523	3064	3162

* χ^2 (1,N=2714)=13.24, p<.05
** χ^2 (1,N=3302)=27.66, p<.05
*** χ^2 (1,N=2714)= 9.42, p<.05

Table 5 displays enrollment by age. There are no significant differences between groups with respect to this variable; however, for both groups, the part-time students tend to be older than full-time students.

Table 5 Enrollment by Age

		*1999	**2000	***2001
Vocational-Technical High Schools				
	Full-time	18.05	18.01	18.12
	Part-time	18.15	18.41	18.14
	Total	18.09	18.15	18.12
Comprehensive High Schools				
	Full-time	18.10	18.16	18.17
	Part-time	18.54	18.52	19.64
	Total	18.22	18.26	18.59

*All part-time students: N = 811, M = 18.50, SD = 2.50, t (2708) = -6.15, p <.05
**All part-time students: N = 941, M = 18.51, SD = 2.63, t (3299) = -5.87, p <.05
***All part-time students: N = 990, M = 19.52, SD = 1.19, t (3416) = -2.32, p <.05

Student Experiences

In the fall of 1999 the percentage of comprehensive high school graduates enrolled full-time was significantly higher than their peers from the vocational-technical high schools. There were no significant differences between the two groups for the fall of 2000 and 2001. However, for the vocational-technical high school group, there has been a steady increase in full-time community college enrollments since 1999 (see Table 6).

Table 6 Enrollment by Credits Attempted

		1999	2000	2001
Vocational-Technical High Schools				
	Full-time	*118	158	180
		62%	66%	70%
	Part-time	73	80	76
		38%	34%	30%
	Total	191	238	256
Comprehensive High Schools				
	Full-time	*1782	2202	2248
		71%	72%	71%
	Part-time	741	862	914
		29%	28%	29%
	Total	2523	3064	3162

*χ^2 (1, N=2714)=6.62, p<.05

Student Outcomes

For the purpose of this study, persistence is defined as the percentage of first-time, full-time and first-time part-time students who complete at least one course with a grade of A, B, C, D, or Pass or Audit in a given semester. Over time, there are no significant differences between groups with respect to persistence from the beginning of term (BOT) to the end of term (EOT) for full-time (FT), part-time (PT) and total students.

Table 7 Persistence: Beginning (BOT) to End (EOT) of Term

Full-Time Students				
		1999	**2000**	**2001**
Vocational-Technical High Schools				
	BOT	118	158	180
	EOT	114	155	175
	Persistence Rate	97%	98%	97%
Comprehensive High Schools				
	BOT	1782	2202	2248
	EOT	1760	2130	2165
	Persistence Rate	99%	97%	96%
Part-Time Students				
		1999	**2000**	**2001**
Vocational-Technical High Schools				
	BOT	73	80	76
	EOT	71	74	74
	Persistence Rate	97%	93%	98%
Comprehensive High Schools				
	BOT	741	862	914
	EOT	726	814	866
	Persistence Rate	98%	94%	95%
All Students				
		1999	**2000**	**2001**
Vocational-Technical High Schools				
	BOT	191	238	256
	EOT	185	229	249
	Persistence Rate	97%	96%	97%
Comprehensive High Schools				
	BOT	2523	3064	3162
	EOT	2486	2944	3031
	Persistence Rate	99%	96%	96%

Table 8 illustrates that for full-time college students in the fall of 2000 and 2001, the first semester grade point average of the vocational-technical high school graduates was statistically higher than their comprehensive high school graduate peers; the difference between a C+ (2.30) and a C (2.0).

Table 8 First Semester Grade Point Average

		1999	2000	2001
Vocational-Technical High Schools				
	Full-time	2.08	*2.27	**2.38
	Part-time	1.73	1.70	1.82
	Total	1.95	2.09	2.21
Comprehensive High Schools				
	Full-time	2.04	*2.08	**2.17
	Part-time	1.65	1.71	1.90
	Total	1.92	1.98	2.09

*Full-time voc-tech students: $N = 155$, $M = 2.27$, $SD = 1.16$, $t\ (2283) = -1.982$, $p < .05$
**Full-time voc-tech students: $N = 175$, $M = 2.38$, $SD = 2.50$, $t\ (2338) = -2.482$, $p < .05$

For cohort years 1999 and 2001 there are no significant differences between groups with respect to one-semester retention rates (see Table 9). For the part-time students in cohort year 2000, the one semester retention rate for the vocational-technical graduates was significantly higher than that of the comprehensive high school graduates. For full-time students from the vocational-technical high school cohorts, there has been a steady increase in one-semester retention rates since 1999.

Table 9 One-Semester Retention: Fall-to-Consecutive Spring

Full-Time Students				
		1999	**2000**	**2001**
Vocational-Technical High Schools				
	Full-time	118	158	180
	Returning in Spring	86	124	150
	Retention Rate	73%	79%	83%
Comprehensive High Schools				
	Full-time	1782	2202	2248
	Returning in Spring	1374	1671	1778
	Retention Rate	77%	76%	79%
Part-Time Students				
		1999	**2000**	**2001**
Vocational-Technical High Schools				
	Part-time	73	80	76
	Returning in Spring	42	*54	46
	Retention Rate	58%	68%	61%
Comprehensive High Schools				
	Part-time	741	862	914
	Returning in Spring	446	*496	547
	Retention Rate	60%	58%	60%

Table 9 Once-Semester Retention: Fall-to-Consecutive Spring (Continued)

All Students				
		1999	**2000**	**2001**
Vocational-Technical High Schools				
	All Students	191	238	256
	Returning in Spring	128	178	196
	Retention Rate	67%	75%	77%
Comprehensive High Schools				
	All Students	2523	3064	3162
	Returning in Spring	1820	2167	2325
	Retention Rate	72%	71%	74%

*U (N=862, 467.52 and N=80, 514.42) = 31046, p<.05

Over time, there are no significant differences between groups with respect to fall-to-fall, annual retention rates (see Table 10).

Table 10 One-Year Retention: Fall-to-Fall

Full-Time Students				
		1999	**2000**	**2001**
Vocational-Technical High Schools				
	Full-time	118	158	180
	Returning the following Fall semester	60	94	NA
	Retention Rate	51%	60%	NA
Comprehensive High Schools				
	Full-time	1782	2202	2248
	Returning the following Fall semester	1005	1246	NA
	Retention Rate	56%	57%	NA
Part-Time Students				
		1999	**2000**	**2001**
Vocational-Technical High Schools				
	Part-time	73	90	76
	Returning the following Fall semester	33	40	NA
	Retention Rate	45%	44%	NA
Comprehensive High Schools				
	Part-time	741	862	914
	Returning the following Fall semester	305	380	NA
	Retention Rate	41%	44%	NA

Table 10: One-Year Retention: Fall-to-Fall (Continued)

All Students				
		1999	2000	2001
Vocational-Technical High Schools				
	All Students	191	238	256
	Returning the following Fall semester	93	134	NA
	Retention Rate	49%	56%	NA
Comprehensive High Schools				
	All Students	2523	3064	3162
	Returning the following Fall semester	1310	1626	NA
	Retention Rate	52%	53%	NA

Conclusions

Community college student enrollments from the vocational-technical high schools have increased by 34% over the past three years. The proportion of men and women included in both groups is statistically similar (roughly 50% each). The vocational-technical high school graduates attending the community colleges include a larger percentage of minority students than the comprehensive high school graduates. This difference can be attributed to a higher proportion of Hispanic students. Part-time students from both groups tend to be older than the full-time students. For the vocational-technical high school group, there has been a steady increase in full-time community college enrollments since 1999.

There is little evidence found in the available data to suggest that vocational-technical students are any more or less successful than their peers from the comprehensive high schools. For the fall of 2000 and 2001, the first semester grade point average for full-time students from the vocational-technical high school graduates was statistically higher than that of the comprehensive high school graduates; the difference between a C+ (2.30) and a C (2.0). There are no differences between groups with respect to persistence from beginning of term to end of term. With the exception of part-time students from cohort year 2000, there are no significant differences between groups with respect to one-semester retention rates. There are no differences between groups with respect to annual retention rates.

The data suggest that high school type is not related to future academic performance at the Connecticut Community Colleges. As a system, we should move forward with articulation discussions and do more to better inform all Connecticut high schools concerning the success of their graduates.

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